United States Department of Agriculture | Forest Service | Santa Fe National Forest | Pecos/Las Vegas Ranger District
P.O. Drawer 429
Pecos, New Mexico 87552
PH 505-757-6121

File Code: 1950
Date: December 18, 2020

Dear Friends and Neighbors,

The Pecos/Las Vegas Ranger District of the Santa Fe National Forest (SFNF), in cooperation with the Upper Pecos Watershed Association (UPWA), are proposing a project to restore the stream channel, floodplain, and user-created recreation sites of Dalton Creek along a 1-mile segment located in the SFNF. We are also proposing to close the area between Forest Road 123 (FR 123) and the creek for two years to allow the area to recover from heavy recreational use and restoration activities. This project is funded by a grant to the Upper Pecos Watershed Association from the New Mexico Surface Water Quality Bureau using funds available under provisions of the Clean Water Act. The purpose of the proposed project is to restore water quality in Dalton Creek and the Pecos River, protect the road in Dalton Canyon from being undercut by further erosion, improve the riparian habitat around the creek, restore function of the floodplain around the creek, improve fish habitat, protect the creek and its fish population from droughts, and minimize the potential for further damage to the creek in the event of another wildfire in the canyon. The project would be implemented during a low-flow period in Dalton Creek and is anticipated to last approximately 6 weeks. FR 123 will remain open throughout implementation. The attached Scoping Report provides details regarding the proposed action (ATTACHED).

Based on similar projects as well as initial internal and external scoping, the project is expected to be completed under a Categorical Exclusion. Specifically, the proposed project is anticipated to meet the criteria for Categorical Exclusion #19, which is defined in Title 36, Chapter II, Section 220.6(e), paragraph 19 of the Code of Federal Regulations. The proposed action would restore the creek channel, banks, and riparian zone to a more natural condition, reduce erosion, improve water quality, and provide better habitat for fish.

The Forest Service is soliciting any issues or concerns from individuals interested in the proposed action to improve the segment of Dalton Creek within the SFNF. To be most helpful, your comments should be clear and concise and received by January 20, 2020.

Please submit your written comments to: Steve Romero, District Ranger, Pecos Ranger District, Po Drawer 429, Pecos, New Mexico 87552; 505-757-6121 (phone); comments-southwestern-santafe-pecos-lasvegas@fs.fed.us (.doc, .txt, .rtf only). If you have any questions about the proposal please email Alberta D. Maez, NEPA Coordinator at alberta.maez@usda.gov.

In compliance with the Freedom of Information Act, comments received in response to this solicitation, including names and addresses, will become part of the public record and available for inspection.

We look forward to hearing from you.

Sincerely,

STEVE ROMERO
District Ranger

Dalton Canyon Restoration Project

The Pecos/Las Vegas Ranger District of the Santa Fe National Forest (SFNF), in partnership with the Upper Pecos Watershed Association (UPWA), proposes restoration activities to address long-term flooding (2013) erosion damage and recreational damage in Dalton Canyon. The proposed project area is located along Dalton Creek, from the cattleguard off New Mexico Highway 63 (NM 63) up to the boundary of the private land on Forest Road 123 (FR 123) (see Project Area Map and Site Map, Figures 1 and 2). This site (T 17N, R 11E, Section 25 and T 17N, R 12E, Section 30) is located about 6.5 miles north of the village of Pecos in the Pecos Canyon. The project area, which was heavily damaged by the Dalton Fire in 2002 and then by a major flood event in 2013, is used as a recreation area for camping, hiking, hunting, fishing, and Christmas tree harvesting. Several privately owned homes are located just past the project area on Dalton Canyon Road.

This project is funded by the Environmental Protection Agency via the State of New Mexico through a Clean Water Act Section 319(h) grant administered by the New Mexico Environment Department, which specifically targets water quality impaired state waters. The project is designed to improve water quality in Dalton Creek and the Pecos River.

The Project is being considered under actions which are categorically excluded from documentation in an Environmental Assessment or Environmental Impact Statement, pursuant to Title 36 of the Code of Federal Regulations (CFR) 220.6 (e)(19) and found in the Forest Service Handbook 1909.15, Chapter 30, Section 31.2. Categories of actions for which a project or case file and decision memo are required:

> Category 19 – Removing and/or relocating debris and sediment following disturbance events (such as floods, hurricanes, tornados, mechanical/ engineering failures, etc.) to restore uplands, wetlands, or riparian systems to pre-disturbance conditions, to the extent practicable, such that site conditions would not impede or negatively alter natural processes.

The Proposed Action is designed to be consistent with direction in the 1987 Santa Fe National Forest (SFNF) Land and Resource Management Plan, as amended (LRMP, 2010).

Purpose of and Need for the Project

The purpose of the proposed project is to improve water quality in Dalton Creek and the Pecos River, help protect the creek, fish populations and FR 123 in Dalton Canyon, improve riparian and fish habitat, restore function of the floodplain, and mitigate further impairment from future disturbance events.

A preliminary assessment of the creek shows substantial relocation of the channel and severe erosion, which resulted from the 100-year-plus flood event of September 13, 2013. The erosion is so severe (see Photograph 1) that it cut through the bank at one point and followed the old FR 123 road bed. Additional erosion and degraded water quality is occurring as a result of recreational damage (see Photograph 2, 3, 4, 5, and 6). Access to the creek by vehicular traffic has eliminated riparian vegetation in some areas and is contributing to more erosion in the creek channel and ultimately to degraded water quality and aquatic habitat. The recreational pressure was exceptionally high in the summer of 2020 with substantial trash being left behind, severe soil compaction, sewage on the ground, and an oil spill in the creek.

At the upper end of the project area is a large, abandoned beaver wetland. These ponds were inhabited by beavers as recently as 15 years ago, and had active beaver dams in aerial photos from 1935. Anecdotal accounts from local residents indicate that the beavers were harassed, moved downstream, and then shot out about 15-18 years ago. In the 2013 flood, the previously existing road up Dalton Canyon 'became the Creek', this straightened channel cut 6-8 feet deep and 10 feet wide and drained the main beaver pond.

Photograph 1. Bank erosion and road encroachment.

Photograph 2. Recreational damage to creek bank.

Photograph 3. Trash left by recreational users.

Photograph 4. Trash left by recreational users.

Photograph 5. Trash left by recreational users.

Photograph 6. Oil slick from spill.

In other places the creek is over-widened due to bank erosion. In these locations, the width of the floodplain has been narrowed, fine sediments have been deposited, stream shade has been reduced, and many fish pools have been lost; therefore, protection from further bank erosion or drought conditions has been reduced. Bank erosion on the north side of the creek is, in some places, threatening FR 123 through the canyon.

Desired Condition

Streambanks should have low-angle slopes with riparian vegetation growing on them. The channel should have a low bench at least on one side to provide room for floodwaters to expand out onto the floodplain. Wetlands would be present in the floodplain to maintain water quality. Overnight camping opportunities would occur a sufficient distance away from the creek to not impact riparian vegetation. Vehicles would not be able to access the streams edge and creek bank. There should be few conifers in the riparian zone around the creek that block the direct sunlight needed by riparian species to thrive.

Proposed Action

The proposed project would occur along approximately 2.5 miles of Dalton Canyon with the following treatments focused in the upper 1.5-mile section. There are four areas (Sites 1-4, see Figure 2) where work would be completed.

The Forest Service and UPWA propose to accomplish the following actions in order to achieve the desired conditions:

Actions common to entire area:

Dalton Canyon would be closed to recreational use for two years. The closure is proposed for the area between Dalton Creek and FR 123 (the west and south side of FR 123) starting from the cattle guard on FR 123 (located near the intersection with NM 63) to the private property located approximately 2.6 miles from the intersection with NM 63. See Figures 1 and 2.

Structures used to implement the project (see descriptions attached):

- Zuni Bowl
- One-rock Dam
- Beaver Dam Analogue
- J-hook or Cross Vane
- Plug and Pond
- Bankfull Bench
- Rolling Dip
- Infiltration Basin
- Swale

Where conifers are competing with riparian species, conifers up to 9 inches DBH would be cut by hand (e.g. chainsaw, handsaw, loppers) and either be left in place or piled to provide wildlife habitat. This activity may be continued by the Forest Service for the next 10-15 years, as needed, and would occur outside of the nesting season.

Resource protection measures (integrated design features) would be implemented as designed by resource specialists as listed in specialist reports in the project record.

In the project area in Dalton Canyon and Creek:

Site 1:

The ponds would be repaired and the creek would be buffered from visitor use. A series of plug and pond structures, natural structures out of soil and wetland sod, would be created in the existing eroded creek channel. The first plug would be a repair of the old beaver-created berm. Below this old pond, four large plugs would be constructed in the previous road/channel, which would lift the water table approximately 5 feet and fill the beaver pond. The water would spread onto existing wetlands covered with bulrush, cattails and sedges and flow in the former location of Dalton Creek prior to the 2013 flood. This area would all become a wetland with basins and berms. Basins would be planted with transplanted willow and locally obtained wetland vegetation, creating a wetland buffer alongside the creek. The user-created

road would be raked with the excavator teeth, filled and leveled with excess local material (soil, gravel, cobble), and reseeded with certified weed-free native grasses found in the area and planted with wild roses and plums from nearby. Partially buried boulders, logs, and branches would be scattered over them to discourage use.

The structures that would be implemented at Site 1 include approximately: 9 Plug and Ponds, 2 Beaver Dam Analogues, 1 Zuni Bowl, 1 One-rock Dam, and 2 J-hook Vanes.

Site 2:

This location has two 4-5' tall, 60-100' long eroding banks that were caused by the 2013 flood. These two banks would be repaired using a low-impact rubber tracked excavator to cut back the bank at a less steep angle at the toe of the slope. A 5-foot-wide section of riparian vegetation including willows, rushes and sedges would be transplanted at the toe of the slope. In addition, an abandoned channel would be restored that would raise the water table throughout the valley bottom and sub-irrigate riparian vegetation. Rock structures and earthen berms would be used to anchor the restored channel and prevent further erosion.

The structures that would be implemented at Site 2 include approximately: 2 Bankfull Benches, 2 J-hook Vanes, and 1 Zuni Bowl.

Site 3:

User-created campsites would be treated. User created campsites, access roads and continued high use have created problems in these areas including compacted soil, reduced vegetative cover, poor drainage, and increased streambank erosion and sedimentation. Runoff would be drained from the campsites, captured, and infiltrated using swales, shallow ditches on contour and infiltration basins. Infiltration basins would be revegetated with wild roses and plums. Partially buried boulders and logs would be placed to discourage use in these areas. Streambank erosion would be treated by creating a 15-foot-wide vegetated buffer on the floodplain and planting willow whips and cottonwood trees. Steeper access roads, swales, and infiltration basins would be blocked off with partially buried boulders and/or logs to mitigate erosion, increase safety, and prevent vehicles from entering them.

The structures that would be implemented at Site 3 include approximately: 3 Infiltration Basins, 1 Swale, and 1 Rolling Dip.

Site 4:

Several rock and log grade control structures are planned at critical locations to raise the stream grade, prevent further erosion, and sub-irrigate the floodplain meadows on either side of Dalton Creek. The large, barren meadow along the Dalton Creek road would be re-seeded with a certified weed-free native grass and wildflower mix in order to prevent erosion and create habitat. Rolling dips would be installed to drain FR 123, surface flow would be directed to vegetated buffers and other locations where it can passively infiltrate. If needed, locally harvested cobbles would be used to construct rock rundowns to mitigate erosion and sedimentation from runoff.

The structures that would be implemented at Site 4 include approximately: 4 One-rock Dams, 1 J-hook Vane, and 3 Rolling Dips.

How would this project affect Forest users?

The project would be implemented during a low-flow period in Dalton Creek, either after snow melt runoff in the late spring/early summer or in the fall and is anticipated to last approximately 8 weeks. Camping restriction would last two years following implementation. During project implementation, recreationists who would have used this immediate project area would be displaced to other recreation sites in Pecos Canyon. Implementation activities would not occur during holidays. Road Access to Dalton canyon, including the residences, would not be altered during implementation of this project. Impacts to

users should be minimal during implementation of the project. Overall, this project would improve fish habitat and fishing opportunities in the river and in the long-term improve water quality.

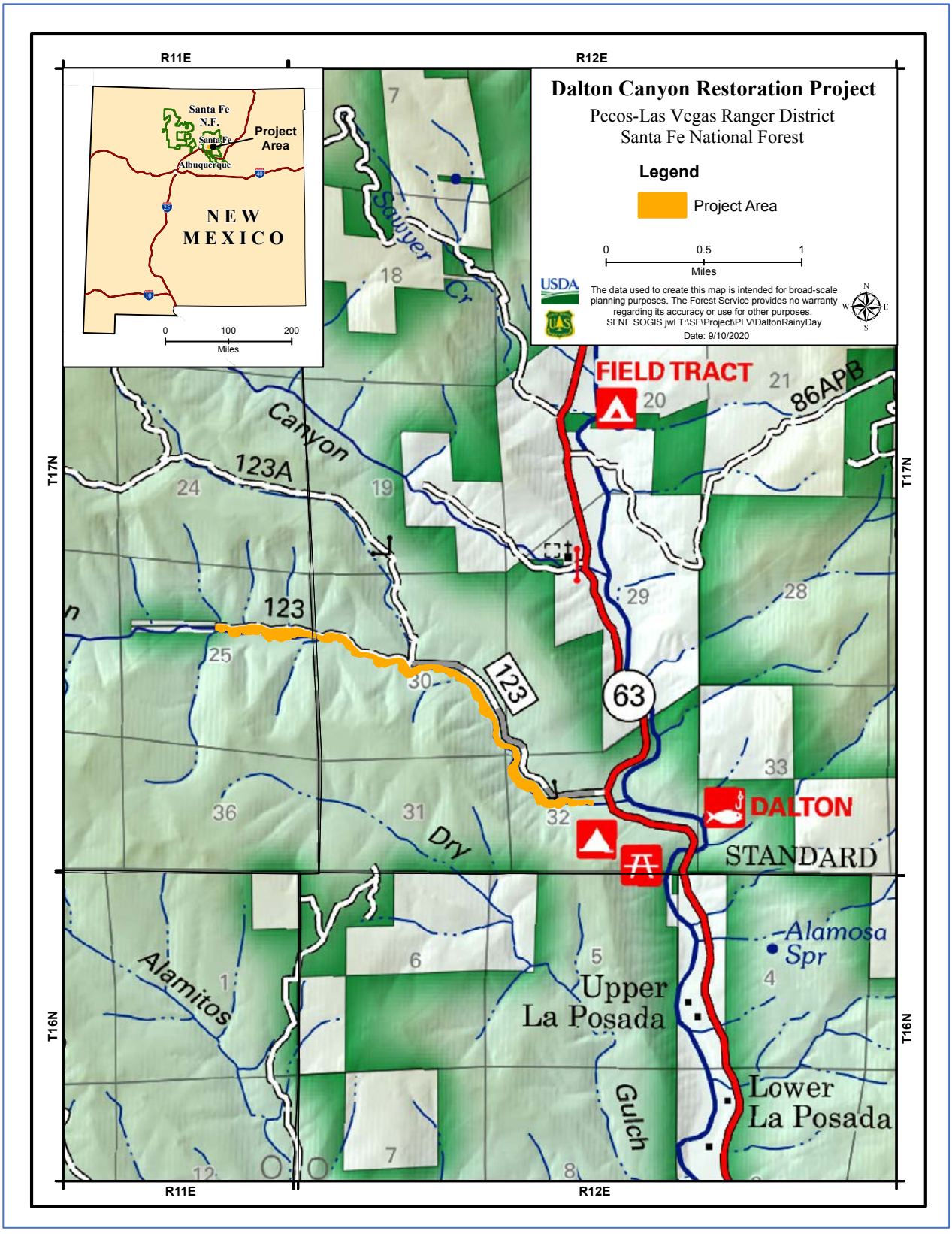


Figure 1. Dalton Canyon Treatment Map

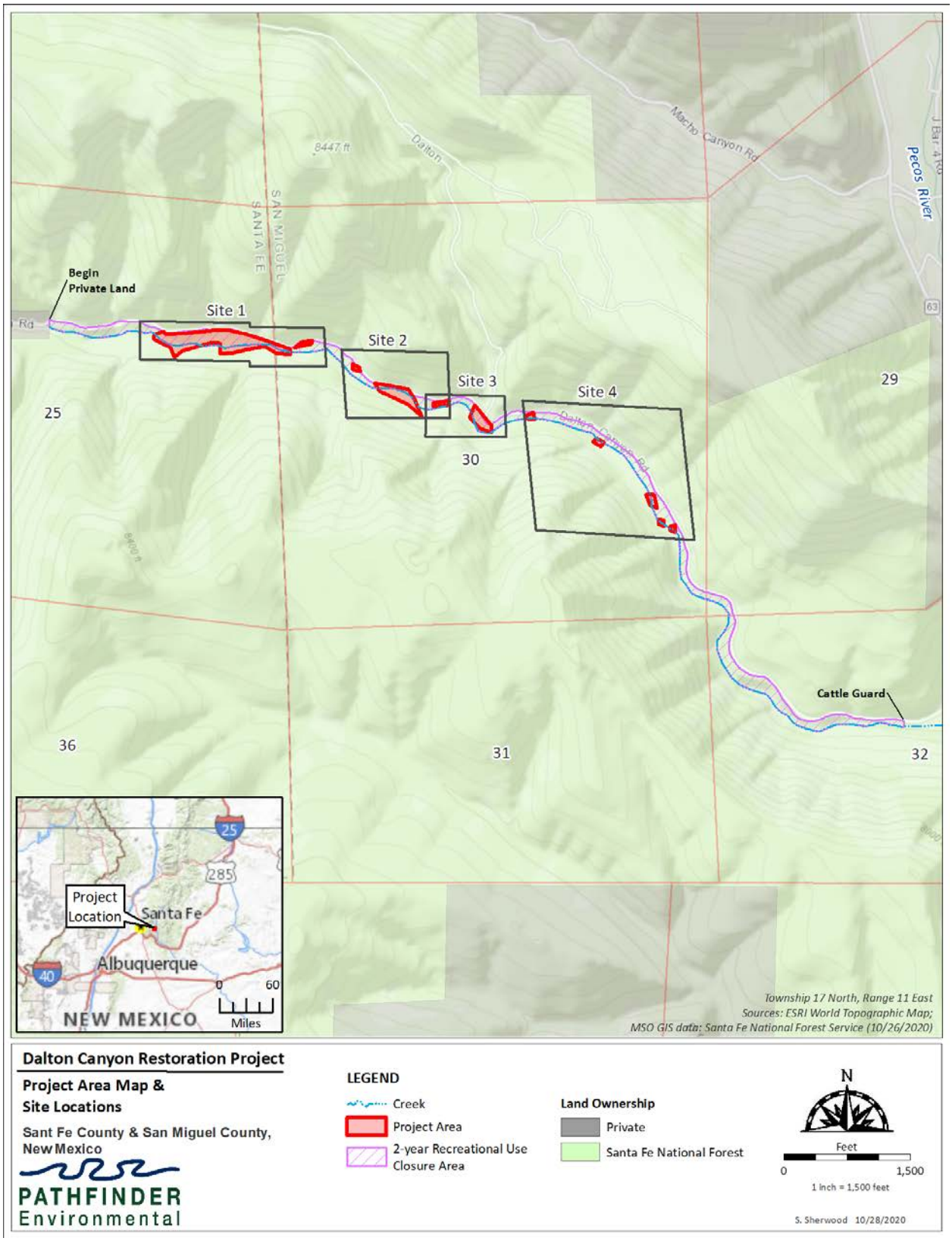


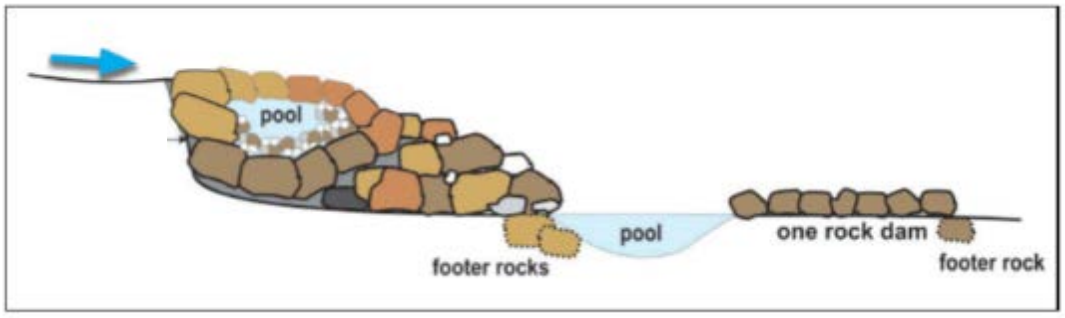
Figure 2. Site Map

Restoration Structure Descriptions

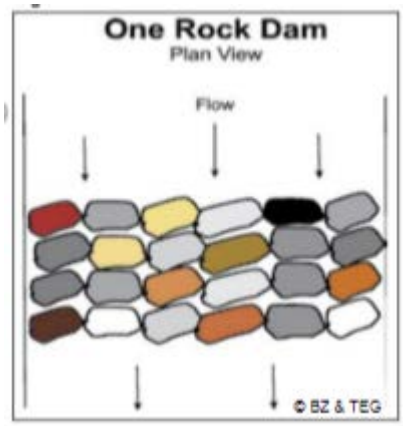
Grade Control

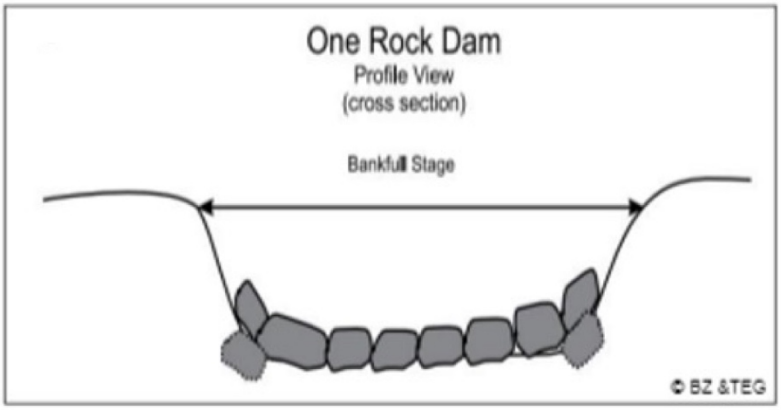
Grade control structures prevent downcutting and incision of stream channels. In some cases they can be used to raise the elevation of the bottom of a stream channel.

1. Zuni Bowl - The Zuni Bowl structure is a small waterfall/cascade constructed out of boulders at a headcut (erosion of a channel cause caused by waterflow) in the Creek. Water pours over the nickpoint and the force of the water is dispersed by pouring into a pool. This structure prevents scour (erosion) and advancement of a headcut upstream. See figure.



2. One Rock Dam – The one rock dam is a constructed riffle structure consisting of large cobbles stacked one rock deep. These structures are placed at the riffle and used to raise the grade of the channel in response to channel scouring and loss of channel elevation (i.e. deepening). Raising the channel elevation raises the water table, re-connects the creek with its floodplain, and sub-irrigates the valley bottom.

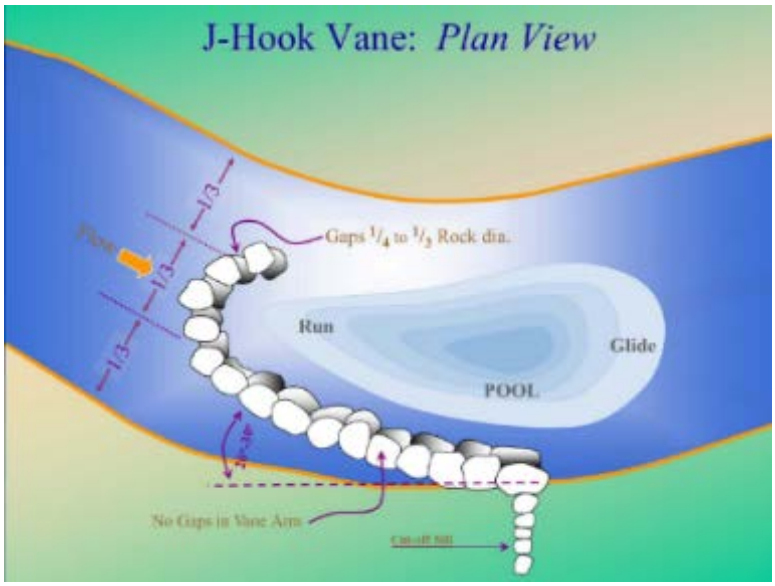




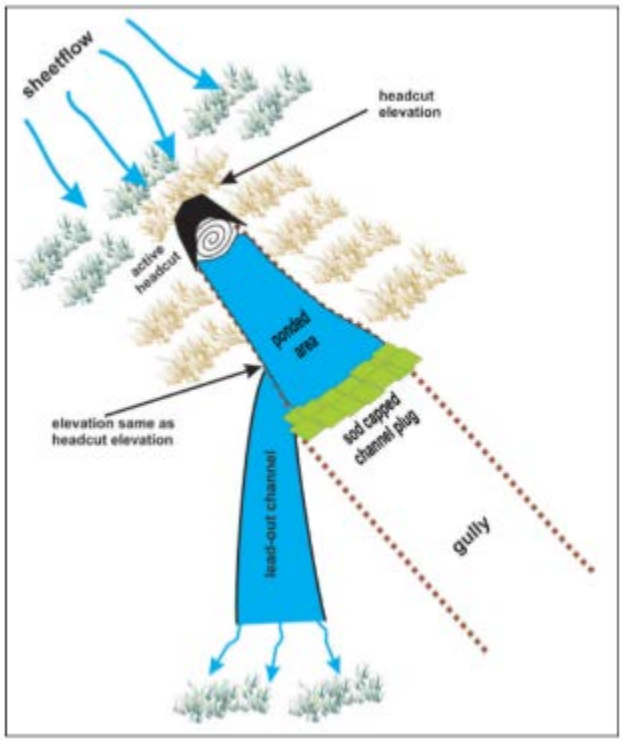
3. Beaver Dam Analogues – Wooden pickets are driven vertically into the ground and then willows are woven back and forth in a basket-like structure. This structure slows and spreads the water flow of the creek across the floodplain and valley bottom. The willows are able to capture sediment and grow roots, anchoring the structure in place.

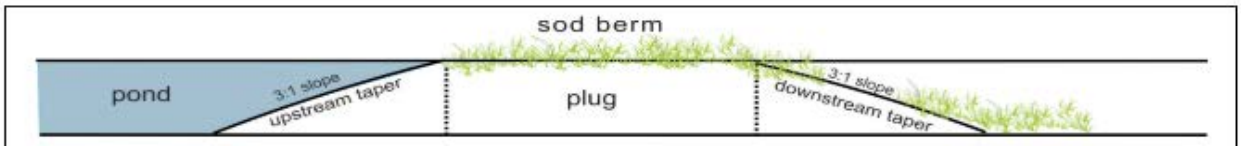
Channel Features

4. J Hook or Cross Vane – A vane structure points upstream into the channel flow and diverts water to the center of the channel. This structure protects the bank from erosion and builds a small pool in the middle of the Creek. A Cross Vane or J-Hook Vane is constructed from 1/2 yard or larger boulders, or a combination of logs and rock. Diagram by Wildland Hydrology.

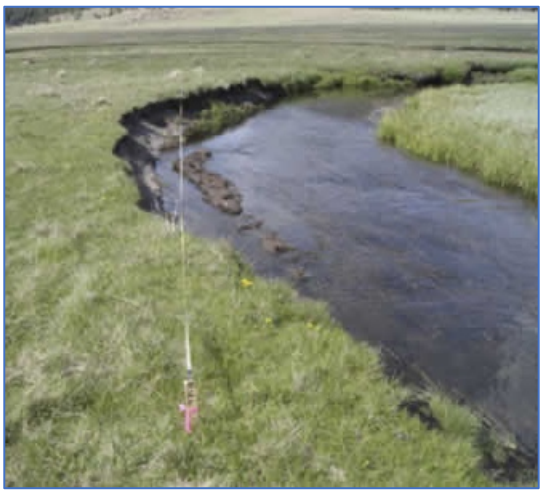


5. Plug and Pond – A plug and pond structure is constructed to plug a gully and divert the flow of the water into an existing channel or wetland. The gully becomes a pond, and the soil from the dug pond is used to create a dam or plug. This plug is covered with native grass sod from the nearby area and becomes undistinguishable from the nearby area. The channel elevation is raised and the water table is raised throughout the valley. These structures create pond habitat for wildlife and sub-irrigate the riparian area. A large gully can be transformed into a series of ponds and wetlands.





6. Bankfull Bench – Riparian vegetation would be removed from the top of the bank and transplanted along the edge of the creek at the toe of the slope. The steep bank would be laid back to a less steep angle. The vegetation narrows the creek's width, provides overhanging vegetation and reduces turbidity by buffering bare soil, thus reducing sediment input from erosion.



Road Drainage

7. Rolling Dip – A rolling dip road drain is a constructed swale and berm placed at a 45-degree angle to the direction of the road. The rolling dip sheds water at slope-dependent intervals, thus minimizing the length of road that the water travels down and subsequently reduces sediment transport from the road surface from water flow. Water flows down the swale and lead-out ditch into a nearby receiving meadow or infiltration basin. The slope of the swale is steep enough to keep the swale dry and prevent puddling. The swale and berm are sized to allow for vehicle travel easily over the structure. Swale and lead-out ditch inflow and outflow would be armored (rocks to prevent scour erosion) as needed.
8. Infiltration Basin – A shallow depression or basin temporarily captures runoff water filtering out sediments and contaminants before the water reaches the creek. They would be re-planted with native grass sod and shrubs collected nearby.
9. Terrace Swale – This structure is a shallow trench cut on the contour for spreading water without erosive force or channeling. The excavated materials create a berm on the downhill side and provide planting areas as the water captured in the swale sub-irrigates the area. Terrace swales would be used to create a vegetative buffer between campsites and Dalton Creek.